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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,898	04/16/2004	Hiroshi Hasegawa	10873.1432US01	2218
23552	7590	11/09/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			WON, BUMSUK	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/826,898	Applicant(s) HASEGAWA ET AL.	
	Examiner Bumsuk Won	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/04, 9/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Miura (US 2001/0004187).

Regarding claim 1, Miura discloses an electron gun (figure 5) comprising: cathodes (31); a control electrode (32); an accelerating electrode (33); a first focusing electrode (35a); a second focusing electrode (35b) facing the first focusing electrode (35a) via a gap (between 35a and 35b); and an anode electrode (36); wherein the cathodes (31), the control electrode (32), the accelerating electrode (33), the first focusing electrode (35a), the second focusing electrode (35b) and the anode electrode (36) are disposed in this order (figure 5), and an electron beam passing aperture (figure 2A, 16b1) provided in at least one of a surface (16f) of the first focusing electrode (16) facing the second focusing electrode and a surface of the second focusing

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electrode facing the first focusing electrode is a single opening common to three electron beams (paragraph 46, figures 2A – 2C). “The first focusing electrode and the second focusing electrode being supplied with equal electric potentials” does not have a patentable weight since it is operational limitation and does not affect the structural limitation of the claim.

Regarding claim 2, Miura discloses an electron beam passing aperture provided in both of the surface of the first focusing electrode facing the second focusing electrode and the surface of the second focusing electrode facing the first focusing electrode is a single opening common to three electron beams (paragraph 46, figures 2A – 2C).

Regarding claim 5, Miura discloses both ends of the single opening in a horizontal direction have a circular arc shape (figure 2A).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura (US 2001/0004187) in view of Matsuo (US 2002/0153825).

Regarding claim 3, Miura further discloses the first focusing electrode or the second focusing electrode provided with the single opening has a tubular wall surface surrounding the three electron beams (figure 2A – 2C), however, Miura does not disclose a hole is provided in lateral surface portions in the wall surface that intersect a horizontal axis.

Matsuo discloses a hole is provided in lateral surface portions in the wall surface that intersect a horizontal axis (figure 4), for the purpose of preventing a velocity modulation magnetic field generated by the velocity modulation coils from interfering with a deflection magnetic field (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a hole is provided in lateral surface portions in the wall surface that intersect a horizontal axis disclosed by Matsuo in the electron gun disclosed by Miura, for the purpose of preventing a velocity modulation magnetic field generated by the velocity modulation coils from interfering with a deflection magnetic field.

Regarding claim 6, Miura discloses a cathode ray tube device (figure 1) comprising: a cathode ray tube (figure 1) comprising an envelope having a front panel (1) and a funnel (3), and an electron gun (the portion that is between 2 and 13) inside a neck portion (2) of the funnel (3), the electron gun (figure 5) having a first focusing electrode (35a) and a second focusing electrode (35b) facing the first focusing electrode via a gap (the gap between 35a and 35b); wherein an electron beam passing aperture (figure 2A, 16b1) provided in at least one of a surface

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(16f) of the first focusing electrode (16) facing the second focusing electrode and a surface of the second focusing electrode facing the first focusing electrode is a single opening common to three electron beams (paragraph 46, figures 2A – 2C). “The first focusing electrode and the second focusing electrode being supplied with equal electric potentials” does not have a patentable weight since it is operational limitation.

Miura does not disclose a scanning velocity modulation coil provided on an outer surface of the neck portion and near the first focusing electrode and the second focusing electrode.

Matsuo discloses a scanning velocity modulation coil (figure 1, 6) provided on an outer surface of the neck portion (3) and near the first focusing electrode (26) and the second focusing electrode (27).

The reason for combining is the same as for claim 3 above.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miura (US 2001/0004187) in view of Takekawa (US 2002/0079820).

Regarding claim 4, Miura discloses all of the claimed limitations except for a vertical width of the single opening near positions through which the three electron beams pass is smaller than that at the other positions.

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Takekawa discloses a vertical width of the opening near positions through which the three electron beams pass is smaller than that at the other positions (figure 2A), for the purpose of minimizing a vertical dimension of a region for passing the electron beam (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the opening near positions through which the three electron beams pass is smaller than that at the other positions disclosed by Takekawa in the electron gun disclosed by Miura, for the purpose of minimizing a vertical dimension of a region for passing the electron beam.

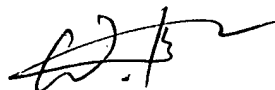
Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bumsuk Won
Patent Examiner



JOSEPH WILLIAMS
PRIMARY EXAMINER